

CLAIMS:

- Sub C1 / 5 1. A method for preventing the development of an autoimmune disease in a susceptible subject comprising administering to the subject an effective amount of a T cell CD28 costimulatory receptor (CD28) agonist.
- 10 2. The method of claim 1 wherein the autoimmune disease is selected from the group consisting of autoimmune diabetes, multiple sclerosis, myasthenia gravis, rheumatoid arthritis, Hashimoto's thyroiditis, Sjogren syndrome and systemic lupus erythematosus.
- 15 3. The method of claim 1 wherein the agonist is selected from the group consisting of an anti-CD28 agonist antibody, human B7-2 protein and a B7-2 extracellular domain polypeptide or an effective fragment of said polypeptide.
- 20 4. The method of claim 3 wherein the agonist is an anti-CD28 agonist antibody.
- Sub D2 / 25 5. The method of claim 4 wherein the subject is a human subject.
6. The method of claim 5 wherein the antibody is a monoclonal antibody.
- 30 7. The method of claim 3 wherein the agonist is B7-2 protein.
8. The method of claim 5 wherein the autoimmune disease is autoimmune diabetes.

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C2 } 9. The method of claim 8 wherein human subject is aged from about 6 months to about 2 or 3 years.

10. A method for prolonging acceptance of an engrafted tissue in a mammalian recipient of a tissue transplant comprising administering to the mammalian recipient an effective acceptance-prolonging amount of a CD28 agonist.

11. The method of claim 10 wherein the agonist is selected from the group consisting of an anti-CD28 agonist antibody, human B7-2 protein and a B7-2 extracellular domain polypeptide or an effective fragment of said polypeptide.

12. The method of claim 11 wherein the agonist is an anti-CD28 agonist antibody.

13. The method of claim 12 wherein the mammalian recipient is a human recipient.

14. The method of claim 13 wherein the tissue transplant is selected from the group consisting of a kidney transplant, a heart transplant, a pancreas transplant, a pancreatic islet transplant and a liver transplant.

15. The method of claim 13 wherein the antibody is a monoclonal antibody.

16. The method of claim 11 wherein the agonist is B7-2 protein.

17. A pharmaceutical composition for preventing the development of an autoimmune disease in a susceptible subject comprising an effective amount of a CD28 agonist.

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18. The pharmaceutical composition of claim 17 further comprising a pharmaceutically acceptable carrier.

19. The pharmaceutical composition of any of claims 17 or 18 wherein the CD28 agonist is selected from the group consisting of an anti-CD28 agonist antibody, human B7-2 protein and a B7-2 extracellular domain polypeptide or an effective fragment of said polypeptide.

20. The pharmaceutical composition of any of claims 17 to 19 wherein the CD 28 agonist is an anti-CD28 agonist antibody.

21. The pharmaceutical composition of claim 20 wherein the antibody is a monoclonal antibody.

22. The pharmaceutical composition of claim 19 wherein the agonist is B7-2 protein.

23. The pharmaceutical composition of any of claims 17 to 22 wherein the autoimmune disease is selected from the group consisting of autoimmune diabetes, multiple sclerosis, myasthenia gravis, rheumatoid arthritis, Hashimoto's thyroiditis, Sjogren syndrome and systemic lupus erythematosus.

24. The pharmaceutical composition of claim 23 wherein the autoimmune disease is autoimmune diabetes.

25. A pharmaceutical composition for prolonging acceptance of an engrafted tissue in a mammalian recipient of a tissue transplant comprising an effective amount of a CD28 agonist.

26. The pharmaceutical composition of claim 25 further comprising a pharmaceutically acceptable carrier.

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5 27. The pharmaceutical composition of any of claims 25 or 26 wherein the CD28 agonist is selected from the group consisting of an anti-CD28 agonist antibody, human B7-2 protein and a B7-2 extracellular domain polypeptide or an effective fragment of said polypeptide.

10 28. The pharmaceutical composition of any of claims 25 to 27 wherein the agonist is an anti-CD28 agonist antibody.

15 29. The pharmaceutical composition of claim 28 wherein the antibody is a monoclonal antibody.

30. The pharmaceutical composition of claim 27 wherein the agonist is B7-2 protein.

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20 31. The pharmaceutical composition of any of claims 25 to 30 wherein the tissue transplant is selected from the group consisting of a kidney transplant, a heart transplant, a pancreas transplant, a pancreatic islet transplant and a liver transplant.

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